09/402,208

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      (FILE 'HOME' ENTERED AT 16:49:17 ON 18 APR 2003)

      FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 16:49:28 ON 18
      APR 2003
L1          5794 S (FETUIN?)
L2          8206 S (FETAL)(2A)(PROTEIN?)
L3            85 S L1 AND (CO OR COBALT)
L4             5 S L3 AND (ZN OR ZINC)
L5             5 DUP REM L4 (0 DUPLICATES REMOVED)

      FILE 'STNGUIDE' ENTERED AT 16:52:05 ON 18 APR 2003

      FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 16:53:33 ON 18
      APR 2003
L6           116 S L1 AND METAL?
L7            25 S L1 (20A) METAL?
L8            18 DUP REM L7 (7 DUPLICATES REMOVED)
L9             1 S L7 AND (BARIUM OR BA)
L10            3 S L7 AND (ZINC OR ZN)
L11            3 DUP REM L10 (0 DUPLICATES REMOVED)

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L20 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 3
AN 1992:3964 CAPLUS
DN 116:3964
TI **Fetuin** and alpha-2HS glycoprotein induce alkaline phosphatase in epiphyseal growth plate chondrocytes
AU Ishikawa, Yoshinori; Wu, Licia N. Y.; Valhmu, Wilmot B.; Wuthier, Roy E.
CS Dep. Chem., Univ. South Carolina, Columbia, SC, 29208, USA
SO Journal of Cellular Physiology (1991), 149(2), 222-34
CODEN: JCLLAX; ISSN: 0021-9541
DT Journal
LA English
AB A previously described chondrocyte alk. phosphatase induction factor (CAP-IF) for chicken epiphyseal growth plate chondrocytes has been purified to SDS-PAGE homogeneity from fetal bovine serum by ammonium sulfate pptn. and by dye-ligand affinity (Affi-Gel Blue and Reactive Green-19 agarose) and hydroxyapatite column chromatogs. As detd. by immunopptn. of [35S]methionine-labeled cellular proteins after 3-day treatment, this highly purified CAP-IF increases the level of AP and certain other membrane proteins 2- to 3-fold over control values. The pure protein of apparent 64.5 kDa mol. wt. has been identified as **fetuin** by N-terminal amino acid sequencing. This was confirmed by the finding that high alk. phosphatase (AP)-inducing activity is present in **fetuin** prepd. by the Spiro method. However, **fetuins** prepd. by the Pedersen or Deutsch procedures are inactive. At least half of the CAP-IF activity of **fetuin** was irreversibly destroyed by treatment with **EDTA**, and addn. of **Zn2**+ did not reactivate the **EDTA**-treated **fetuin**. Ascorbate synergistically enhanced the effect of **fetuin** and chondrocyte AP activity by over 8-fold during 3-day exposure. Because of the very high homol. between **fetuin** and the A-chain of .alpha.2-HS glycoprotein, it was also tested and found that .alpha.2HS glycoproteins from human serum and bovine bone are both strong AP inducers. These findings suggest that the AP-inducing activity resides in a labile, cystatin/**Zn2**+-binding domain common to these related serum glycoproteins. These proteins appear to play a role in enhancing AP expression in normal growth plate cartilage differentiation.

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L20 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4
AN 1984:170277 CAPLUS
DN 100:170277
TI Identification of "embryonin" as bovine .alpha.2-macroglobulin
AU Feldman, Steven R.; Gonias, Steven L.; Ney, Kathryn A.; Pratt, Charlotte W.; Pizzo, Salvatore V.
CS Med. Cent., Duke Univ., Durham, NC, 27710, USA
SO Journal of Biological Chemistry (1984), 259(7), 4458-62
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Pedersen **fetuin** contains a contaminant, embryonin, that exhibits immuno cross-reactivity with human .alpha.2-macroglobulin (.alpha.2Mh). This protein coelutes with .alpha.2Mh in gel filtration chromatog. and can be purified to homogeneity by **Zn2+ chelate** chromatog.
By SDS-polyacrylamide gel electrophoresis (SDS-PAGE), this contaminant exhibited similar subunit size, protease-induced cleavage fragments, and heat fragmentation as .alpha.2Mh. [125I]trypsin and [125I]chymotrypsin each bound at a ratio of 0.9 mol/mol to this **fetuin**-derived native .alpha.2M (.alpha.2Mf) and at a ratio of <0.2 mol/mol to methylamine-treated .alpha.2Mf. As detd. by SDS-PAGE, 1:1 molar ratio of protease/.alpha.2Mf cleaved each .alpha.2Mf subunit to fragments of .apprx.72,000 daltons. At a 0.2:1 molar ratio of trypsin/.alpha.2Mf-methylamine, every .alpha.2Mf-methylamine subunit was cleaved to polypeptide chains of .apprx.72,000 and 110,000 daltons. In native PAGE, .alpha.2Mf and .alpha.2Mf-methylamine migrated with the same mobility; after reaction with trypsin, their mobilities increased similarly. [125I].alpha.2Mf cleared from the circulation of mice with a half-time (t1/2) of 30 min. The trypsin or methylamine deriv. of [125I].alpha.2Mf cleared with t1/2 of <5 min and clearance was competable when the ligand was coinjected with a large molar excess of unlabeled .alpha.2Mh-methylamine. .alpha.2Mf, 0.3 nM, treated with trypsin or methylamine, inhibited 50% of the binding of 0.1 nM [125I].alpha.2Mh-methylamine to specific receptors on mouse peritoneal macrophages in vitro. Native .alpha.2Mf did not inhibit significantly the binding of the ligand at this concn. Bovine .alpha.2M was purified from plasma by Ni2+ **chelate** chromatog. By SDS-PAGE, amino acid anal., and CNBr peptide mapping, it was indistinguishable from .alpha.2M purified from **fetuin**.
Thus, embryonin is bovine .alpha.2M.

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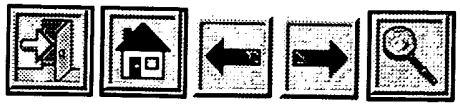
L5 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1981:65547 BIOSIS
DN BR21:543
TI PARTIAL PURIFICATION AND PROPERTIES OF A CELL SURFACE N ACETYL GLUCOSAMINE BINDING PROTEIN FROM CALF LYMPHOCYTES.
AU WOLFMAN A; BELL J E
CS UNIV. ROCHESTER MED. CENT., ROCHESTER, N.Y. 14642.
SO 65TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, ATLANTA, GA., USA, APRIL 12-17, 1981. FED PROC. (1981) 40 (3 PART 2), 813.
CODEN: FEPRA7. ISSN: 0014-9446.
DT Conference
FS BR; OLD
LA English



Long View for STIC Online Catalog

Your Search: **ISSN = 0014-9446**

Displaying Record: **1 of 1**

Author	Federation of American Societies for Experimental Biology.
Title	Federation proceedings.
Imprint	[Bethesda, Md.] : Federation of American Societies for Experimental Biology,
Dates of Pub	Vol. 10, no. 1, pt. 1 (Mar. 1951)-v. 46, no. 8 (June 1987)
Description	46 v. : ill., diagrs. : 26 cm.
Contributors	American Physiological Society (1887-). Proceedings.
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Notes	Vol. for 1942- include proceedings of the American Physiological Society. Translation supplement issued with v. 21-25 (1963-66). Official publication of the Federation of American Societies for Experimental Biology.
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Biotechnology and Chemical Library Microfilm	QH301 .F4 Microfilm	v.45 1986 c.1	Available
Biotechnology and Chemical Library Microfilm	QH301 .F4 Microfilm	v.46 no.1-8 1987 c.1	Available
Biotechnology and Chemical Library	QH301 .F4	v.10 no.1 1951 c.1	Available
Biotechnology and Chemical Library	QH301 .F4	v.11 1952 c.1	Available
Biotechnology and Chemical Library	QH301 .F4	v.12 1953 c.1	Available
Biotechnology and Chemical Library	QH301 .F4	v.13 1954 c.1	Available

L4 ANSWER 3 OF 3 MEDLINE
AN 62107439 MEDLINE
DN 62107439
TI **Studies** on **fetuin**, a **glycoprotein** of **fetal** serum. II. Nature of the carbohydrate units.
AU SPIRO R G
SO J Biol Chem, (1962 Feb) 237 382-8.
DT Journal
LA English
FS OLDMEDLINE
EM 196212
ED Entered STN: 19990716
Last Updated on STN: 19990716
ST carbohydrates - blood; fetus - blood; glycoproteins - blood
RN 66455-27-4 (GLYCOPROTEINS)

(FILE 'HOME' ENTERED AT 16:49:17 ON 18 APR 2003)

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 16:49:28 ON 18 APR 2003

L1 5794 S (FETUIN?)
L2 8206 S (FETAL)(2A)(PROTEIN?)
L3 85 S L1 AND (CO OR COBALT)
L4 5 S L3 AND (ZN OR ZINC)
L5 5 DUP REM L4 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 16:52:05 ON 18 APR 2003

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 16:53:33 ON 18 APR 2003

L6 116 S L1 AND METAL?
L7 25 S L1 (20A) METAL?
L8 18 DUP REM L7 (7 DUPLICATES REMOVED)
L9 1 S L7 AND (BARIUM OR BA)
L10 3 S L7 AND (ZINC OR ZN)
L11 3 DUP REM L10 (0 DUPLICATES REMOVED)
L12 0 S (METAL?)(3A)(DEPENDEN?) AND (L1 OR L2)
L13 183 S L2 AND (ZINC OR ZN)
L14 0 S L13 AND (CHELAT? OR EDTA)
L15 46 S L2 AND (CHELAT? OR EDTA)
L16 18 DUP REM L15 (28 DUPLICATES REMOVED)
L17 0 S L16 AND (ZINC OR ZN?)
L18 168 S L1 AND (CHELAT? OR EDTA OR ETHYLENEDIAMIN?)
L19 28 S L18 AND (ZINC OR ZN?)
L20 15 DUP REM L19 (13 DUPLICATES REMOVED)